Project Name

Improving the Pregnancy Rate in In-vitro Fertilization (IVF) Patients Who Supposed to Have Fresh Embryo Transfer.

Site	Department
Jeddah	Department of Pathology & Lab Medicine/ART Lab

Project Status	Project Start Date	Project End Date
Completed	01-01-2018	30-09-2018

Problem: Why the project was needed?

The average pregnancy rate achieved in fresh embryo transfer cycles for the last four years (2014 -2017) at our Assisted Reproduction Technology (ART) Unit was 28% which is considered low. Therefore, we decided to improve the pregnancy rate in this category of patients by implementing evidence based practice which is being done in countries like USA and others.

Aims: What will the project achieve?

Increase the pregnancy rate from 28% to at least 40% in IVF patients who may not get pregnant after having fresh embryo transfer.

Benefits/Impact: What is the improvement outcome?

(check all that apply)

- ☐ Contained or reduced costs
- ☒ Improved productivity
- ☒ Improved work process
- ☐ Improved cycle time
- ☒ Increased customer satisfaction
- ☐ Other (please explain)

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Quality Domain: Which of the domains of healthcare quality does this project support?

Effective

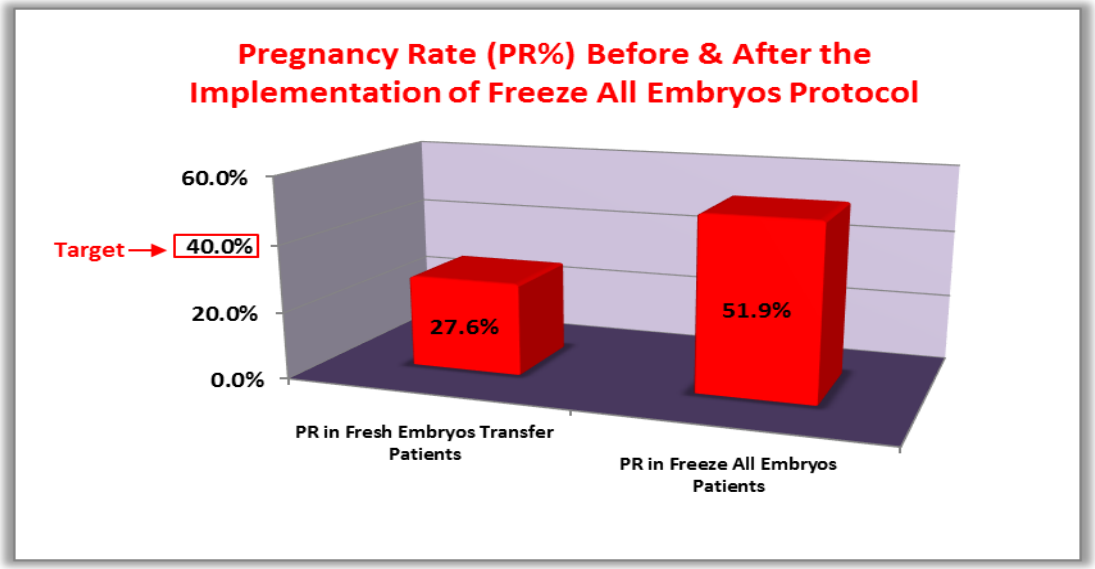
Interventions: Overview of key steps/work completed

- First of all a criteria for patient selection was set for this study.
- The patients who failed to achieve pregnancy in previous fresh embryos transfer cycle, who got ovarian hyperstimulation syndrome, who got very high levels of E2 hormone after ovarian stimulation with FSH, who have large number of eggs or good quality embryos were selected for this study.
- All ART procedures including ovum pick-up, ICSI, fertilization check and embryos development check was done as per routine, however, embryo transfer of fresh embryos was not done and all good quality embryos were frozen.
- 2-3 months later, the patients were prepared for Frozen Embryo Transfer Cycle by taking low dose oral pills of Estradiol and Progesterone. The endometrium thickness was checked by ultrasound. Once the endometrium thickness reached to ≥9 mm, patient was scheduled for embryo transfer.
- The day before the scheduled embryo transfer day, frozen embryos were thawed and cultured overnight in CO2 incubator. Next day the best growing embryos were selected and transferred to the uterus of the patients.
- As a luteal support, patients were asked to continue taking Progesterone but in high dose until the day of pregnancy check. Two weeks after the embryo transfer, patient was tested for βhCG hormone, if found pregnant then Progesterone administration was continued for another 3 months.
- Five weeks after the embryo transfer, the pregnant patients were confirmed for clinical pregnancy by checking the heart beat by ultrasound.
- After implementing “Freeze All Embryos” protocol, we achieved 88% increase in the pregnancy rate in this category of patients.

Results: Insert relevant graphs and charts to illustrate improvement pre and post project

(insert relevant graphs, data, charts, etc.)

	Total # of Embryo Transfers	Total Pregnant	Pregnancy Rate
Before the implementation of Freeze All Embryos Protocol (2014 – 2017)	**717**	**198**	**27.6%**
After the implementation of Freeze All Embryos Protocol	**27**	**14**	**51.9%**



Project Lead	Team Members
Name *(person accountable for project)* Dr. Naeem Iqbal	**Names** *(persons involved in project)* Nour Al Attas (QM Facilitator) Dr. Hanin Abdul Jabaar Amal Feda Dina Shams Yasmina Saggaf Amilie Elumir Ala Khamri Michelle Briedenhann